Differentiation and Differentiated Instruction

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Abstract

Differentiation and differentiated instruction are two very current issues in education. This paper takes a look at some of the issues related to differentiation and to differentiated instruction. It puts forward the idea that differentiation must take place at two different levels. The first level at which differentiation must take place being the macro-level of governmental policy and oversight. Included in that level are school system philosophy and agenda setting, and individual school culture. The second level at which differentiation must take place is the micro-level, the classroom. Some of the key players who should be involved with differentiation are mentioned, and their probable roles are discussed. The paper pursues the idea that differentiation is an important educational strategy, and that it is one that takes more than the efforts of the teacher.

Introduction

In many school systems today it is clear, beyond any doubt, that differentiation has become one of the new buzz words. It is also clear that there is great need for clarification as to what is really meant by differentiation. Even at the level of the individual school it is sometimes very difficult to get a single clear and definitive statement as to what is meant when different people use the term differentiation. The only thing that seems to be certain is the belief and expectation that it is something that the classroom teacher is responsible for doing.

Differentiation is not a new concept. Some, for example, suggest that differentiation was to be found in the one room school house of early American history. (Anderson, 2007) The reason for the re-emergence of differentiation as an issue in education is said by some
researchers to be the No Child Left Behind Act of 2001. (King-Sears, 2008) NCLB requires that all students should be included in the educational process, and that they should be able to meet state standards. Differentiation is essential to meeting this goal. (Hoover and Patton, 2004)

When most people hear the term differentiation used with respect to education they immediately connect it to classroom practice. They understand it to mean that classroom teachers are making the necessary adjustments and adaptations to meet the diverse needs, learning styles, and learning preferences of their students. The concept is defined thus:- “differentiated instruction is a set of strategies that will help teachers meet each child where they are when they enter class, and move them forward as far as possible on their educational path.” (Levy, 2008 p162) Anderson, 2007; Kapusnick and Hauslien, 2001; and Tobin and McInnes ,2008, are among several writers and researchers who generally concur with the viewpoint presented by Levy.

It seems, however, to be the case that if differentiation will be optimally successful, it would have to reach beyond the classroom. With student success at the core of differentiation, there would be the need for several layers and levels of differentiation. Gammoran and Weinstein, 1998, advance the idea of differentiated structures in schools. Clune, 1993, approaches the idea from the perspective of systematic educational policy. Serious educational reform and successful differentiation will require the involvement of parties at a number of different levels. Not only the teacher, but also school administrators, and policy makers as well, would need to assume a vested interest in the effort. There would of necessity be the need for action at the macro levels – government, school boards, school leaders, as well as at the micro level – the classroom.
**Narrative**

The idea of macro and micro level perspectives of differentiation will be the focus of the discussion that follows in the rest of this paper. The stated objective of differentiation is always student achievement. Certainly there is no disputing the merits, and necessity, of this objective. Unfortunately, serious issues arise when one looks at the actual practice of differentiation. The ‘why’ is never the problem, but the ‘how’, the ‘what’, and the ‘who’ often become points of separation for practitioners. Matters related to curriculum delivery and the incorporation therein of differentiated teaching strategies are almost always the first to arise. Can successful differentiation be accomplished in this the day and age of standardized curricula? Clune, 1993 shows how the argument could be made that differentiation might actually be an obstacle that stands in the way of curriculum upgrading. From the perspective presented by Clune, successful differentiation would require that some critical decisions be made at the systemic - macro - level. As Clune sees it, “the challenge would be to design policies that combine high standards of systemic policy with a broad diversity of curricular options and a powerful delivery system.” (p234) One of the suggestions made is that curriculum upgrading could be achieved through the differentiated curriculum. The differentiation suggested here embraces a wide variety of factors – academic or vocational focus, socio-economic status, curriculum preference. (Clune, 1993, p238)

Another perspective on curriculum differentiation is offered by John Hoover and James Patton, (2004). Their particular lens is the NCLB mandate that all students, including those with special needs, must meet state standards. This mandate creates the need to bridge the gap between standards based education and differentiating curriculum to include special needs children. They identified, and offered for information, four elements (Table 1) that they deemed
to be necessary for effective implementation and differentiation of curriculum and instruction.

(Hoover and Patton, 2004)

Table 1

<table>
<thead>
<tr>
<th>Element</th>
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<tr>
<td>Content</td>
<td>Specific subject area skills and knowledge associated with each curriculum standard.</td>
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<tr>
<td>Instructional strategies</td>
<td>Various techniques or methods used to assist students in acquiring content and managing behavior.</td>
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<tr>
<td>Instructional settings</td>
<td>Includes small groups, independent work, paired learning, and large groups.</td>
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<tr>
<td>Student behaviors</td>
<td>Students’ abilities to manage and control their own behaviors within a variety of learning situations and groupings in the classroom.</td>
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A 1995 study conducted in Northern Ireland by Brian McGarvey and a team of researchers suggested a number of problems related to differentiation. While the data was generated at the micro-level, it does hold some implications for consideration at the macro-level. One of the first things to be noted is the assertion that provision of differentiated learning experiences would require “whole school policies.” (McGarvey, 1996) The idea of whole school policies is of critical importance to successful differentiation within the classroom. Attention to policies would help to define the school culture and climate, and this in turn could create the right context, at the macro-level, to support classroom differentiation.

The research of McGarvey also reports the following results with respect to problems that relate to differentiation: - (i) the lack of storage facilities and effective teaching space, (ii) absence of policies to provide classroom support to teachers, (iii) provision of sufficient time for
planning and evaluation, (iv) shortage of adequate resources, (v) disparity of resource provision, (vi) issues related to class size. Past and current experiences suggest that each of these issues raised by the McGarvey study is still a relevant issue in the move towards effective differentiated instruction. A close look at each of them would show that they are all matters to be addressed at a level other than the classroom level. Take for example the matter of disparity of resource provision. This is a macro-level issue that should be addressed, at least, at the level of the school district.

The matter of school wide policies as an issue in differentiation, which is noted in the McGarvey research, also appears in the work of other researchers. Adam Gamoran and Matthew Weinstein, in a 1998 study, address the subject from the perspective of school restructuring. This study looked at the problems related to differentiation and inequality. The purpose was to identify a viable solution to the problem of unequal opportunities. The measurement of success in the effort to resolve issues related to differentiation and opportunity is, according to Gamoran and Weinstein, 1998, “that students were allocated to classes that provided opportunities to engage in high quality academic work.” (p391)

This Gamoran and Weinstein study raises issues that particularly relate to school culture and philosophy. Three areas of focus are cited, they are: (i) curriculum structure – how the curriculum is first put together, and then how it is delivered to the students; (ii) instructional quality – including strategies to support students who were experiencing problems; (iii) supporting conditions – issues like class size, funding, staffing, and parental support. These concepts are of critical importance at the macro-level of differentiation. Their importance derives from the fact that they would serve to create right kind of school culture and philosophy, and that
this would, in turn, prepare a suitable context for success at the micro-level of differentiation. This micro-level is the level of the classroom and differentiated instruction.

Before proceeding to a closer look at this micro-level aspect of differentiation, there is a view of differentiation from a somewhat different perspective that merits some discussion. Another burning issue in education today is the tension between public schooling and the privatization of education. Most would probably agree that public schooling is experiencing considerable pressure from the privatization movement. Responding to this situation, Paul George, a Distinguished Professor of Education at the University of Florida, offered an interesting perspective on differentiation. In a 2005 article George takes the position that the “viability of the traditional public school” is facing serious challenges. He continues in the article to suggest that there is a particularly bleak forecast for the future of public schools. The solution, he suggests, is that educators, who are committed to public school education, “must find ways of providing excellence and challenges to all students, while integrating most students, whenever appropriate, into the life of the regular classroom.” (George, 2005, p185-6)

Professor George proposed two pathways for addressing his concerns. One is the pathway of differentiated instruction. He states, “educators move forward, rapidly and visibly, in the successful implementation of classroom level strategies that provide differentiated curriculum, instruction, and assessment.” (George 2005, p186) It is made unmistakably clear that this differentiation should be pursued in the context of the heterogeneous classroom. In George’s opinion this differentiation is vital to the survival of the traditional public school.

There are varying points of view as they relate to differentiation in education. What seems to be a common theme, however, is that differentiation has an important place in the
educational landscape. Some of this differentiation has to occur at the macro-levels of governmental policy and oversight; school system philosophy and agenda setting, and individual school culture. These macro-level efforts would address issues like school funding, staffing, educational policy, the provisions of adequate facilities, and the development of adequate curricula. With these matters attended to the foundation would be prepared for action at the next level, the micro-level of differentiation.

The micro-level of differentiation is differentiated instruction, that which the classroom teacher does in the effort to accommodate all students. There are four areas where the teacher may focus his/her efforts to differentiate instruction. In that which follows, the ‘why’, the ‘what’, and the ‘how’ of differentiating instruction will be addressed. In the George 2005 article cited earlier, the rationale he offered for differentiated instruction was that he sees it as the salvation of traditional public schooling. He also offers other reasons. The essence of these reasons is that differentiated instruction accommodates: (i) student diversity, (ii) the needs of gifted learners, (iii) the needs of less able students and those with learning disabilities, (iv) instruction for democracy’s future, (v) providing of access to knowledge and information, (vi) the nature of the learning process. (George, 2005) The reasons offered by Professor George are consistent with those put forward by others. Anderson, 2007 states that “differentiation implies that purpose of schools should be to maximize the capabilities of all students.” (p50) This opinion, like that of Professor George, focuses on meeting the needs of diverse students.

The reasons for differentiating instruction are further established by the opinion that it is an effective model for both heterogeneous and homogeneous groupings and that it “assists teachers in effectively engaging more students, through acceptance of student diversity, and the use of this diversity to create better instruction.” (Kapusnick and Hanstein, 2001) This same
article also addresses the foundations that differentiated instruction finds in Howard Gardner’s Theory of Multiple Intelligences, and in Vygotsky’s Zone of Proximal Development Theory.

When it is accepted that there are sound reasons that form a basis for differentiating instruction, it becomes necessary to address the matter of what is to be differentiated. These areas are, (i) content – what the student needs to learn, (ii) process – how the student will gain access to the content, (iii) products – how the student will demonstrate grasp and mastery of the content, (iv) the learning environment – context in which the student pursues mastery of the content. (Tomlinson, 2000) Item (iv) in Tomlinson’s list merits further commentary. Most articles on the subject do not include the learning environment as one of the areas to be differentiated, but this is a critically important factor in differentiation. The features of the contexts in which learning is to take place are matters of great importance. One recalls, for example, that, in the McGarvey 1996 article cited earlier, the access to adequate teaching space was emerged as a critical issue. Note in addition however, that learning environment not only refers to the amount of space, but also looks at how that space is used to promote learning possibilities.

Several strategies are suggested for pursuing successful differentiation. With respect to differentiating content, for example, Anderson, 2007 suggests that content may be differentiated by using various levels of reading materials. This method would be used as opposed to “varying learner objectives and lowering performance expectations for some students.” (p50) Grouping students is another one of the strategies that are suggested for differentiating instruction. As an example of how to apply this strategy, Levy, 2008, suggests the following: (i) grouping for student needs, (ii) grouping for learning styles, (iii) grouping for student interests, (iv) heterogeneous grouping.
Kapusnick and Hauslien, 2001 presented eight strategies that are commonly used in differentiated instruction. These strategies are outlined in Table 2 below.

Table 2

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<tr>
<th>Strategy</th>
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<tr>
<td>Acceleration</td>
<td>Qualifying students offered the option to proceed, on their own, at an accelerated pace.</td>
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<tr>
<td>Curriculum Compacting</td>
<td>Compressing essential learning and allowing students to progress beyond material already mastered while remaining on grade level.</td>
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<tr>
<td>Independent Study</td>
<td>Teacher and student identify a problem or topic of interest for the student, and developing a plan for independent investigation.</td>
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<tr>
<td>Flexible Grouping</td>
<td>Teachers design groups using a variety of criteria to provide the opportunity for all students to interact with students of similar and different abilities and interest levels.</td>
</tr>
<tr>
<td>Independent Learning Centers</td>
<td>Providing enrichment and reinforcement by offering opportunities to explore topics in more depth.</td>
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<tr>
<td>Complex Questions</td>
<td>Teachers ask complex questions that are open-ended, appeal to higher order thinking skills, allow adequate wait time for answers, and provide opportunities for peer discussion and follow-up questions.</td>
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<tr>
<td>Tiered Activities</td>
<td>Allow for student to choose his or her own level of accomplishment. The teacher develops tiered activities based on the curriculum. Tasks vary in complexity, number of steps, and outcome produced.</td>
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<tr>
<td>Contracts</td>
<td>Agreements between teachers and students that relate to how tasks would be completed.</td>
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Standards based curriculum and instruction arise as issues in differentiated instruction. All students are required to meet standards that have been developed at the local district, state, and federal government levels. (Levy, 2008) While one might argue about whether or not this is
realistic, given the vast diversity that exists in student populations, it is the reality by which the
delivery of education is constrained. The end of the line practitioner, the teacher, is left to decide
upon ways in which to make it happen. Hoover and Patton, 2004, offer the opinion that standards
based reform allows teachers the opportunity to serve the needs of students with learning and
behavioral problems better. This study identifies and offers for consideration four necessary
elements, see Table 1, for addressing effective implementation and differentiation of curriculum
and instruction. While their particular concern is special needs children, it is easy to see the
similarity between these four elements, and those ideas put forward by others, including

Conclusion

When it is considered that the stated aim of differentiation is to make curriculum
accessible to all learners with a view towards all of them achieving academic success, it would
be difficult to make any argument against the concept. What then becomes abundantly clear is
that there is the need for clarity as to what it is, and who should be responsible to see that it is
successful. The need for this is further underscored by the findings reported by documents like
the TIMSS Report. This report shows that US High School students are ranked lower in math
and science achievement than students in several other countries. Certainly this is a factor that
should reinforce the need to look for ways to do things differently across the board. Let it be
clear that “across the board” runs the entire gamut, from what happens in classroom interaction
between teacher and student, to what happens at the highest levels of government where
educational policy is framed.
Differentiated instruction looks at making adjustments with respect to curriculum, process, product, and learning environment. (Tomlinson, 2000) This is a micro-level application. It is suggested that this micro-level application should be translated to the macro-level and that there should be a concerted effort made to effectuate the kinds of adjustments and adaptations that differentiation philosophy would demand. The teacher is concerned with the classroom. The school administration is concerned with the school. The school district leadership is concerned with policy and curriculum decisions that would give direction to school leaders. The governmental agents, at city, state, and federal levels, are concerned with overseeing the provision of direction and resources to support school districts. There are roles for players at all of the various levels.

At the classroom level, there will be the need for teachers who will develop the mindset that embraces differentiation as a viable instructional strategy. These teachers then would make the deliberate, concerted effort to incorporate the various principles of differentiation into their practice. Teachers would first look at their students, and then engage the challenge of making their classrooms supportive and enriching environments for them, for each and every one of them. These teachers, adhering to the philosophy of Tomlinson, 2000, would be concerned with adjusting curriculum – what is to be taught and learnt, process – how it will be taught and learnt, and product – how learning will be assessed. These adjustments would be made in the effort to fit the teaching and learning process to the student. Incidentally, this would be a welcome departure from the unfortunate process of trying to adjust the student to fit the teaching and learning process. When the needed changes have been identified, the teacher would then set about the task of creating a learning environment that would support the needs of students.
It should not be expected that successful differentiation would take place in a vacuum. Successful differentiation should occur because of, and not in spite of, school culture and environment. School leaders must take on the responsibility to see that provision is made to support differentiation. Concerns like teaching space, resources, classroom supports, class structure, and scheduling, for examples must be addressed. Providing professional development opportunities should be a priority. School leaders should be actively engaged in supporting and encouraging differentiation, not just demanding it, with no clear definition of what ‘it’ is.

The climb up the educational ladder leads next to the school district level. Leaders at this level should be concerned with taking a close look at the structure of their districts and making a realistic assessment of the needs that exist. Next they should concern themselves with either generating or embracing policies that would address those needs and with communicating the same for all relevant parties. With respect to support for school leaders, they would define the direction that the district desires to move in, and commit to giving these leaders the necessary support for them to be able to move their schools in that direction. With respect to the higher levels of the ladder, the district level defines and clarifies the needs and the support that would be necessary for them to be able to facilitate reform and innovation. They would also frame these needs in the context of the overreaching policy direction that has been put in place by the governmental agencies at the various levels.

The governmental agencies serve a twofold purpose. In the first place, theirs is the responsibility to create the broad policy frameworks that would define the educational landscape. Theirs, for example, should be the task of constantly reviewing education in the broader contexts, nationally and internationally, to be sure that it is keeping pace and staying current. Secondly, they serve the purpose of ensuring that the resources needed to support education are
provided. This almost exclusively applies to funding. The governmental agencies must recognize the critical importance of educating children, and must be willing to commit the necessary portion of their budgets to the cause.

Differentiation and differentiated instruction; these are more than buzzwords and novel ideals. They are concepts that are critically important to the growth and success of education. It is incumbent upon all parties, at all levels, who are in any way involved in education, to realize that they are all equally responsible and accountable, in their varying ways, for successful differentiation. Our future depends on it. For sure, it will take more than just teachers.
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